

APPENDIX C

SHERMAN-WILLIAMS MATERIAL SAFETY DATA SHEETS

POLANE® IG Black Polyurethane Enamel

F63B211

Section 3 -- Physical Data

PRODUCT WEIGHT	See Table	Slower than Ethar
SPECIFIC GRAVITY	1.05-1.47	Residue: Clean Air
BOILING RANGE	133-160°F	H.A.
WETTABLE VOLUME	13-100%	H.A.

Section 4 -- Fire And Explosion Hazard Data

FLAMMABILITY CLASSIFICATION: FLASH POINT: See Table

See Table

EXPLOSION RANGE: See Table

EXPLOSION LIMITS: See Table

EXPLOSION PRESSURE: See Table

EXPLOSION VELOCITY: See Table

EXPLOSION TEMPERATURE: See Table

EXPLOSION DENSITY: See Table

EXPLOSION INDEX: See Table

EXPLOSION CLASSIFICATION: See Table

EXPLOSION HAZARD DATA: See Table

Section 7 -- Spill Or Leak Procedures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Remove all sources of ignition. Ventilate the area. Remove with inert absorbent.
WASTE DISPOSAL METHOD:
Waste from these products may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers. Waste from products containing Methyl Ethyl Ketone may also require extractability testing.
Incidents in approved facility. Do not incinerate closed containers. Dispose of in accordance with Federal, State, and Local regulations regarding pollution.

Section 8 -- Protection Information

PRECAUTIONS TO BE TAKEN IN USE:
NO PERSON SHOULD USE THESE PRODUCTS, OR BE IN THE AREA WHERE THEY ARE BEING USED, IF THEY HAVE CHRONIC (LONG-TERM) LUNG OR BREATHING PROBLEMS OR IF THEY EVEN HAD A TENDENCY TO DEVELOP THEM.
Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.
These coatings may contain materials classified as nuisance particulates (listed "as dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are 5000 mg/m³ (total dust), 3 mg/m³ (respirable fraction), OSHA PEL 14 mg/m³ (total dust), 5 mg/m³ (respirable fraction).

Local exhaust preferable. General exhaust acceptable if the exposure to materials is below applicable limits. Refer to OSHA Standards 1910.94.
Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.107, 1910.108, 1910.109, 1910.110.

RESPIRATORY PROTECTION

Where overexposure is present, a positive pressure air supplied respirator (NIOSH NIOSH/MSHA approved) should be worn. If unavailable, a properly fitted organic vapor/particulate respirator approved by MSHA for protection against materials in Section 2 may be effective.
Follow respirator manufacturer's directions for use. Wear the respirator for the whole time of spraying and until all vapors and mists are gone. NO PERSONS SHOULD BE ALLOWED IN THE AREA WHERE THIS PRODUCT IS BEING USED UNLESS EQUIPPED WITH THE SAME RESPIRATORY PROTECTION RECOMMENDED FOR THE PAINTERS.
When sanding or abrading the dried film, wear a dust/mist respirator approved by MSHA/NIOSH for dust which may be generated from this product, underlying paint, or the abrasive.

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.
Eye Protection - Wear safety spectacles with unperforated side shields.
Other Protective Equipment - Use barrier cream on exposed skin.

Section 9 -- Precautions

COOL STORAGE CONTAINER - See Table
PRECAUTIONS TO BE TAKEN BY HANDLING AND STORING:
Keep away from heat, sparks, and open flame. Vapors will accumulate readily and may ignite explosively. During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition.
Consult MFA Data. Use approved bonding and grounding procedures.
Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.
OTHER PRECAUTIONS:
These products must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.
Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Section 10 -- Other Regulatory Information

CALIFORNIA PROPOSITION 65
WARNING: This product contains a chemical known to the State of California to cause cancer. Full and complete chemical names known to the State of California to cause cancer and birth defect or other reproductive harm.
THIS CERTIFICATION
All chemicals in these products are listed, or are exempt from listing, on the TSCA Inventory.

The above information pertains to these products as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to these products may substantially alter the composition and hazards of the products. Since conditions of use are outside our control, we make no warranty, express or implied, and assume no liability in connection with any use of this information.

Section 3 -- Physical Data

EVAPORATION RATE	Slower than Ethar
VELOC DENSITY	Residue: Clean Air
BOILING POINT	H.A.
WETTABLE VOLUME	H.A.

Section 4 -- Fire And Explosion Hazard Data

FLAMMABILITY CLASSIFICATION: FLASH POINT: See Table

See Table

EXPLOSION RANGE: See Table

EXPLOSION LIMITS: See Table

EXPLOSION PRESSURE: See Table

EXPLOSION VELOCITY: See Table

EXPLOSION TEMPERATURE: See Table

EXPLOSION DENSITY: See Table

EXPLOSION INDEX: See Table

EXPLOSION CLASSIFICATION: See Table

EXPLOSION HAZARD DATA: See Table



Material Safety Data Sheet

The Sherwin-Williams Co.
101 Prospect Ave., N.W.
Cleveland, OH 44115

Emergency telephone number
(216) 566-2917
Information telephone number
(216) 566-2902
Date of preparation
September 1, 1997

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POLANE® Reducers

SOL-POL

CAS No.	Section 2 - Hazardous Ingredient (percent by weight)	ACGIH TLV <STEL>	OSHA PEL <STEL>	Units	Vapor Pressure (mm Hg)	MAK R6 K 30	Cyclohexanone RSK32	K69 Thinner R7 K 69	K84 Thinner R7 K 84	K94 Thinner R7 K 94	Retarder R7 K 216	Reducer R7 K B29	Reducer R7 K B50
103-88-8	Toluene	50	100	PPM (Skin)	22.0	YES		500YES-2158 530-2146 530-2641	530YES-2183 510-2161 530-2656	530YES-2179 530-2187 530-2668	YES	Yes	
100-41-4	Ethylbenzene	100	100	PPM	7.1			9				1	
1330-20-7	Xylene	100	100	PPM	5.9			52			4	7	
78-93-3	Methyl Ethyl Ketone	200	200	PPM	70.0			24		25	59	21	
108-10-1	Methyl Isobutyl Ketone	50	50	PPM	16.0								35
110-43-0	Methyl n-Butyl Ketone	50	100	PPM	2.1	100					71	6	
108-94-1	Cyclohexanone	25	25	PPM (Skin)	2.0		100		36	27			22
108-21-4	Isopropyl Acetate	250	250	PPM	47.5				46	28	24	15	22
123-88-4	n-Butyl Acetate	150	150	PPM	10.0				7.25	7.09	7.68	6.92	6.96
	Weight per Gallon (lbs.)					6.76		7.04	7.25	7.09	7.68	6.92	6.95
	VOC (Volatile Organic Compounds) - lbs./gal.					6.76		7.03	7.25	7.09	7.68	6.92	6.95
	Photochemically Reactive					Yes		Yes	No	No	No	No	No
	Flash Point (°F)					100		35	35	21	92	30	30
	OCM Storage Category					2		1B	1B	1B	1C	1B	1B
	Flammability Classification (Flammable - Combustible)					Combustible	Combustible	Flammable	Flammable	Flammable	Flammable	Flammable	Flammable
	HMS (NFPA) Rating (Health - Flammability - Reactivity)					2-2-0	2-2-0	2-3-0	2-3-0	2-3-0	3-3-0	3-3-0	2-3-0

§ Ingredient, subject to the reporting requirements of the Substantive Amendments and Reauthorization Act (SARA) Section 313, 40 CFR 372.65 C

SOL-POL

Section 7 -- Spill Or Leak Procedures

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

REMOVE ALL SOURCES OF IGNITION. VENTILATE AND REMOVE WITH INERT ASSISTANT.

WASTE DISPOSAL METHOD

Waste from these products may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers. Waste from products containing Methyl Silyl Ketone may also require testing for extractability.

Incidents in Approved Facility: Do not incinerate closed containers. Dispose of in accordance with Federal, State, and local regulations regarding pollution.

Section 8 -- Protection Information

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure of materials in Section II is maintained below applicable exposure limits. Refer to OSHA standards 1910.94, 1915.107, 1915.108.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section II.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section II.

USE OF SAFETY GLASSES

Wear safety spectacles with unperforated sideshields.

Section 9 -- Precautions

DO NOT STORE NEARBY -- See Table

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Keep away from heat, sparks, and open flame.

During use and until all vapors are gone: Keep area ventilated. Do not smoke. Extinguish all flames, pilot lights, and smokers - Turn off stoves, electric tools and appliances, and any other sources of ignition.

Consult NFPA Code. Use approved bonding and grounding procedures.

Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Section 10 -- Other Regulatory Information

CALIFORNIA PROPOSITION 65

WARNING: May thinner, X54 thinner, X54 thinner and X5499 contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

OSHA COMPLIANCE

All chemicals in these products are listed, or are exempt from listing, on the TSCA Inventory.

The above information pertains to these products as currently formulated, and is based on the information available at this time. Addition of additives or other finishing materials to these products may substantially alter the composition and hazards of the products. Since conditions of use are outside our control, we make no warranty, express or implied, and assume no liability in connection with any use of this information.

POLANE® Reducers

Section 3 -- Physical Data

EVAPORATION RATE	Shows less ether behavior than MAZ
VAPOR DENSITY	N.A.
MELTING POINT	N.A.
SOLUBILITY IN WATER	

Section 4 -- Fire And Explosion Hazard Data

FLAMMABILITY CLASSIFICATION	FLASH POINT	See Table
See Table	LEL	1.0
	UEL	16.0

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If used, it is used for nozzles are preferable. Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion when exposed to extreme heat.

Section 5 -- Health Hazard Data

ROUTES OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or eye contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

ACUTE Health Hazards

EFFECTS OF OVEREXPOSURE

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Some exposures may result in unconsciousness and possibly death.

SYMPTOM SYNDROME OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

HEALTH CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

EMERGENCY AND FIRST AID PROCEDURES

IF INHALED: If affected, remove from exposure. Restore breathing. Keep warm and moist. Wash affected area thoroughly with soap and water.

IF ON SKIN: Remove contaminated clothing and launder before re-use. Get medical attention.

IF IN EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

IF SWALLOWED: Never give anything by mouth to an unconscious person. Do not induce vomiting. Give conscious patient several glasses of water. Seek medical attention.

Section 6 -- Reactivity Data

STABILITY -- Stable

CONDITIONS TO AVOID

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon dioxide, Carbon Monoxide.

HAZARDOUS POLYMERIZATION -- Will Not Occur

CHROMIC Health Hazards

no ingredient in these products is an IARC, NTP or OSHA listed carcinogen

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage

Statements overexposure to solvent ingredients in the following products may cause severe effects to organ systems.

- Cyclohexanone & Methyl Amyl Ketone liver, urinary
- X54 Thinner liver, urinary cardiovascular, reproductive
- X5499 & Reducer X54216 liver, urinary blood forming reproductive
- X5499, X54 Thinner & X54 liver, urinary blood forming cardiovascular, reproductive

FROM : SHERWIN-WILLIAMS CEDAR FALLS FAX NO. : 319 277 6277

Aug. 22 2001 11:11AM P1

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MATERIAL SAFETY DATA SHEET

R&K30
05 00

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER	HMIS CODES
<u>R&K30</u>	Health 2
	Flammability 2
	Reactivity 0
PRODUCT NAME	
Methyl Amyl Ketone	
MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
THE SHERWIN-WILLIAMS COMPANY	(216) 566-2917
101 Prospect Avenue N.W.	
Cleveland, OH 44115	
DATE OF PREPARATION	INFORMATION TELEPHONE NO.
22-AUG-01	(216) 566-2902

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

* by WT	CAS No.	INGREDIENT	UNITS	VAPOR PRESSURE
100	110-43-0	Methyl n-Amyl Ketone.		
		NIOSH TLV	50 ppm	2.14 mm
		OSHA PEL	100 ppm	

Section 3 -- HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

EFFECTS OF OVEREXPOSURE

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None generally recognized.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

Section 4 -- FIRST AID MEASURES

FROM : SHERWIN-WILLIAMS CEDAR FALLS... FAX NO. : 319 277 6277

Aug. 22 2001 11:12AM P2

R6K30

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If **INHALED**: If affected, remove from exposure. Restore breathing. Keep warm and quiet.

If on **SKIN**: Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before reuse.

If in **EYES**: Flush eyes with large amounts of water for 15 minutes. Get medical attention.

If **SWALLOWED**: Do not induce vomiting. Get medical attention immediately.

Section 5 — FIRE FIGHTING MEASURES

FLASH POINT	LEL	UEL
100 F FMCC	1.1	7.9

FLAMMABILITY CLASSIFICATION

Combustible, Flash above 59 and below 200 F

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section 6 — ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate and remove with inert absorbent.

Section 7 — HANDLING AND STORAGE

DOT STORAGE CATEGORY

2

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Contents are **COMBUSTIBLE**. Keep away from heat and open flame. Consult NFPA Code. Use approved Bonding and Grounding procedures. Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

Section 8 — EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

Continued on page 3

FROM : SHERWIN-WILLIAMS CEDAR FALLS FAX NO. : 319 277 6277

Aug. 22 2001 11:12AM P3

R6K30

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VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.105.

RESPIRATORY PROTECTION

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH/MSMA for protection against materials in Section II.

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

OTHER PRECAUTIONS

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Section 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	5.75 lb/gal	810 g/l
SPECIFIC GRAVITY	0.81	
BOILING POINT	397 - 508 F	147 - 153 C
MELTING POINT	Not Available	
VOLATILE VOLUME	100 %	
EVAPORATION RATE	Slower than ether	
VAPOR DENSITY	Heavier than air	
SOLUBILITY IN WATER	N.A.	
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical)		
5.75 lb/gal	810 g/l	Less Federally Exempt Solvents
5.75 lb/gal	810 g/l	Emitted VOC

Section 10 — STABILITY AND REACTIVITY

STABILITY — Stable

CONDITIONS TO AVOID

None known.

INCOMPATIBILITY

None known.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide

HAZARDOUS POLYMERIZATION

Will not occur

Section 11 — TOXICOLOGICAL INFORMATION**CHRONIC HEALTH HAZARDS**

No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver and urinary systems.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

TOXICOLOGY DATA

Continued on page 4

FROM : SHERWIN-WILLIAMS CEDAR FALLS FAX NO. : 319 277 6277

Aug. 22 2001 11:13AM P4

R6K20

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CAS No.	Ingredient Name	LC50	RAT	AMR	Not Established
110-43-0	Methyl n-Butyl Ketone.	LD50	RAT		1670 mg/kg

Section 12 -- ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

Section 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

Section 14 -- TRANSPORT INFORMATION

No data available.

Section 15 -- REGULATORY INFORMATION

SARA 313 (40 CFR 372.650) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	# by WT	# Element
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No ingredients in this product are subject to SARA 313 (40 CFR 372.650) Supplier Notification.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

Section 16 -- OTHER INFORMATION

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.



SHERWIN-Williams

CHEMICAL COATINGS™

CC-D20

POLANE® HS Plus Polyurethane Enamel

Black..... F63B60
 Orange..... F63E61
 Green..... F63G62
 Blue..... F63L63
 Hi Hide Organic Red..... F63R62

Red Oxide..... F63R64
 Magenta..... F63R65
 Britz Red..... F63R66
 Silver..... F63S65
 Clear..... F63V67

White..... F63W58
 Hi Hide Opaque Yellow GS..... F63Y63
 Hi Hide Organic Yellow RS..... F63Y65
 Yellow Oxide..... F63Y66
 Catalyst..... V66V55

DESCRIPTION

POLANE® HS Plus Polyurethane Enamel is a two component coating providing high gloss, excellent exterior durability and resistance properties along with high volume solids and 2.8 VOC compliance. The single pigment colors are designed for intermixing to achieve great versatility in color matching capability.

Advantages:

- Binder 2.8 VOC with Polane HS Plus Catalyst V66V55
- Excellent exterior color and gloss retention with V66V55 catalyst
- Excellent exterior physical and chemical performance properties
- Excellent appearance over many types of metal and plastic substrates
- Ideal coating for machine tool industry with resistance to most lubricants and cutting oils
- High solids - high spreading rate
- Air dry or force dry curing
- Full range of colors may be custom blended
- Excellent hardness and impact resistance
- Excellent mar and abrasion resistance
- Apply by conventional, airless, air assisted airless, HVLP or electrostatic spray
- Much faster drying times achieved with the use of infrared type ovens
- For interior use, Polane HS Plus may be catalyzed 2:1 with Polane Plus Catalyst V66V44 and reduced 24% MAK
- Free of lead and chromate hazards

CHARACTERISTICS

Gloss: Full, 90+ units
 Volume Solids: 59 ± 2%
 catalyzed and reduced, may vary by color
 Viscosity: catalyzed and reduced
 18-27 seconds #3 Zahn Cup
 Recommended film thickness: 1.6-1.9
 Mils Wet: 2.0 - 2.5 Mils Dry: 1.25 - 1.5
 Spreading Rate (no application loss)
 @ 1 mil dft: 340-960 sq ft/gal
 Air Drying (1.5 mils dft, 77°F, 50% RH):
 To Touch: 1-1½ hours
 To Handle: 10-12 hours
 Tack Free: 8 hours
 To Recoat: 5-6 hours
 Force Dry: 30-60 min. at 140-160°F
 Curing temperature must not exceed the heat distortion temperature of the plastic substrate.
 Infrared oven schedule to tack free:
 (Flash off 1 minute)
 1.5 lb Gas: 3 min., 2.5 lb Gas: 7 min.
 Mixing Ratio:
 3 part Polane HS Plus
 1 part Catalyst V66V55
 0.48 part (12%) MAK R6K39
 Pot Life: 3 hours

Accelerated Drying:

Add up to 1 ounce of Polane Accelerator, V66VB11 per gallon of Polane HS Plus.

To Touch: 30-60 minutes
 To Handle: 2-3 hours
 Tack Free: 1-2 hours
 To Recoat: 1-1½ hours
 Force Dry: 30 min. at 140-160°F
 Mixing Ratio:
 3 part Polane HS Plus
 including Accelerator
 Catalyst V66V55
 1 part
 0.48 part (12%) MAK R6K39
 Pot Life: 1 hour
 Flash Point: 95°F Beta Flash Closed Cup

Package Life: 2 years, unopened

Air Quality Data:

Non-photochemically reactive
 Volatile Organic Compounds (VOC)
 as packaged, maximum
 2.8 lb/gal, 336 g/L
 catalyzed and reduced as above, maximum
 2.8 lb/gal, 336 g/L

An Air Quality Data Sheet is available from your local Sherwin-Williams facility.

SPECIFICATIONS

General: Substrate should be free of grease, oil, dirt, fingerprints, drawing compounds, any contamination, and surface passivation treatments to ensure optimum adhesion and coating performance properties. Consult Metal Preparation Brochure CC-T1 for additional details.

Aluminum, untreated: Prime with Industrial Wash Primer, P60G2, or Kem Aqua Wash Primer, E61G520, followed by Polane Plus Sealer, E65A71 or 2.8 VOC Catalyzed Epoxy Primer, E61A280.

Galvanized Steel, untreated: Prime with Industrial Wash Primer, P60G2, or Kem Aqua Wash Primer, E61G520, followed by Polane Plus Sealer, E65A71 or 2.8 VOC Catalyzed Epoxy Primer, E61A280.

Plastic: Due to the diverse nature of plastic substrates, a coating or coating system must be tested for acceptable adhesion to the substrate prior to use in production. Reground and recycled plastics along with various fire retardants, flowing agents, mold release agents, and foaming/blowing agents will affect coating adhesion. A filler or primer/barrier coat may be required. Please consult your Sherwin-Williams Chemical Coatings Sales Representative for system recommendations.

Steel or Iron: Remove rust, mill scale, and oxidation products. For best results, treat the surface with a proprietary surface chemical treatment of zinc or iron phosphate to improve corrosion protection. For untreated metal: Prime with Industrial Wash Primer, P60G2, or Kem Aqua Wash Primer, E61G520, followed by Polane Plus Sealer, E65A71 or 2.8 VOC Catalyzed Epoxy Primer, E61A280.

For best corrosion resistance, prime treated steel with Polane Plus Sealer, E65A71 or 2.8 VOC Catalyzed Epoxy Primer, E61A280.

Wood (interior only): Must be clean, dry, and finish sanded. Seal with a full coat of Polane 2.8 Plus SprayFill, D51H75.

Testing: Due to the wide variety of substrates, surface preparation methods, application methods, and environments, the customer should test the complete system for adhesion and compatibility prior to full scale application.

POLANE® HS Plus Emamel

Section III - PHYSICAL DATA

EVAPORATION RATE - Slower than Benzene
VAPOR DENSITY - Heavier than Air
MELTING POINT - N.A.
SOLUBILITY IN WATER - N.A.
SOLUBILITY IN SOLVENTS - N.A.

Section IV - FIRE AND EXPLOSION HAZARD DATA

FLAMMABILITY CLASSIFICATION - See Table
FLASH POINT - See Table
SELF HEAT - See Table
EXTINGUISHING MEDIA
 Carbon Dioxide, Dry Chemical, Foam
 Keep containers tightly closed. Leaks from both electrical equipment, sparks, and open flames. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions, overpressure to decomposition products may cause a shrapnel hazard. Symptoms may not be immediately apparent. Obtain medical attention.
SPECIAL FIRE FIGHTING PRECAUTIONS
 Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, low pressure is preferable. Water may be used to cool closed containers to prevent pressure build-up and possible rupture. Application of application when exposed to extreme heat.

Section V - HEALTH HAZARD DATA

ROUTES OF EXPOSURE
 Inhalation and/or skin or eye contact, depending on conditions of use. Follow recommendations for proper use, ventilation, and personal protective equipment to minimize exposure.
ACUTE HEALTH HAZARDS
EFFECTS OF OVEREXPOSURE
 Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.
SYMPTOMS AND SIGNS OF OVEREXPOSURE
 Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.
ADDITIONAL COMMENTS APPROPRIATE TO EMPLOYERS
 May cause allergic respiratory and/or skin reaction in susceptible persons or sensitization. This effect may be delayed several hours after exposure.
EMERGENCY AND FIRST AID PROCEDURES
IF INHALED: If any breathing problems occur during use, LEAVE THE AREA and get fresh air. If problems result or occur later, IMMEDIATELY get medical attention.
IF ON SKIN: Remove contaminated clothing and launder before re-use. Wash affected area thoroughly with soap and water.
IF IN EYES: Flush eyes with lukewarm water for 15 minutes. Get medical attention.
IF SWALLOWED: Get medical attention.
 Toluene Diisocyanate (TDI), listed by NTP, has been shown to cause cancer in laboratory animals when administered directly into the stomach. No evidence of cancer from exposure to TDI by inhalation has been reported.
 Probable overexposure to solvent ingredients in Section II may cause adverse effects to the liver, urinary, blood forming, cardiovascular, and reproductive systems.
 Persons sensitive to isocyanates will experience increased allergic reaction on repeated exposure.
 Methyl Ethyl Ketone may increase the nervous system effects of other solvents.
 Skin exposed to toluene diisocyanate dust at 250 mg/m³ developed lung cancer, however, such exposure levels are not attainable in the workplace.
 Hepatitis have associated repeated and prolonged overexposure to solvents with treatment from and nervous system damage.

Section VI - REACTIVITY DATA

REACTIVITY - Stable
CONTAINERS TO AVOID
 None known.
INCOMPATIBILITY
 Contamination of Catalysts with water, alcohols, amines and other compounds which react with isocyanates may result in dangerous pressure in, and possible bursting of, closed containers.
HAZARDOUS REACTION PRODUCTS
 None known.
 Fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen, Possibility of Subsequent Cyanide Hazardous Polymerization - Will Not React

Section VII - SPILL OR LEAK PROCEDURES

SPILLS TO BE TREATED AS CASE MATERIAL IS RELEASED ON SPILLER
 Remove all sources of ignition. Ventilate the area.
FOR CLOTHING AND PERSONAL PROTECTION - Remove with inert absorbent.
FOR CONTAMINATED MATERIAL - Decontaminate spilled material with a 10% sodium hydroxide solution (household ammonia). After 15 minutes, collect in open containers and seal these containers. Cover loosely. Wash spill area with soap and water.
HAZARDOUS MATERIALS
 Hazards from products may be hazardous as defined under the International Conservation and Recovery Act (ICRPA) 40 CFR 261. Waste must be treated for ignitability to determine the applicable hazardous waste numbers. Waste from products containing Methyl Ethyl Ketone may also require testing for extractability.
 Incinerate in approved facility. Do not incinerate closed containers. Dispose of in accordance with Federal, State, and local regulations regarding pollution.

Section VIII - PROTECTION INFORMATION

PRECAUTIONS TO BE TAKEN IN USE
 NO PRESSURE SHOULD BE USED THESE PRODUCTS, OR BE IN THE AREA WHERE THESE PRODUCTS ARE BEING USED, IF THEY HAVE CHEMICAL (LONG-TERM) LONG OR RESPIRATORY PROBLEMS OR IF THEY EVER HAD A REACTION TO ISOCYANATE.
 Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.
 When containers may contain materials classified as substance particulates listed as dust in Section II which may be present at hazardous levels only during loading or unloading of the sealed film. If on specific dusts are listed in Section II, the applicable limits for maximum dusts are MATH TYP 10 mg/m³ (total dust), OSHA 5 mg/m³ (total dust), 2 mg/m³ (respirable fraction).
 Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section II is maintained below applicable exposure limits. Refer to OSHA standards 1910.101, 1910.102, 1910.103.

When overexposure is present, a positive pressure air supplied respirator (EQUIP RESPIRATOR) approved by NIOSH/MSHA for protection against vapors/particulates would be worn. If unavailable, a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against vapors in Section II may be worn. Follow respirator manufacturer's directions for use. Wear the respirator for the whole time of spraying and until all vapors and mists are gone. NO RESPIRATOR SHOULD BE ALLOWED IN THE AREA WHERE THESE PRODUCTS ARE BEING USED UNLESS EQUIPPED WITH THE EMERGENCY RESPIRATOR PROVISION PROVIDED FOR THE PATENT.

When spraying or abrading the dried film, wear a dustmask respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.
 Wear gloves which are recommended by glove supplier for protection against materials in Section II.
SKIN PROTECTION
 Wear safety spectacles with unperforated sides/wide.
GENERAL PROTECTIVE EQUIPMENT
 Use barrier screen on exposed skin.

Section IX - PRECAUTIONS

DEL STORAGE CATEGORY - See OSHA REGULATIONS TO BE TAKEN IN HANDLING AND STORAGE
 Keep away from heat, sparks, and open flame.
 During use and until all vapors and mists are gone. Keep area ventilated - Do not smoke - No open flame, pilot lights, and matches. Turn off all open, electric tools and appliances, and any other sources of ignition.
General NTP Code - See approved codebook and accompanying procedures.
 Keep containers closed when not in use. Transfer only in approved containers with complete and appropriate labeling. Do not reuse internally. Keep out of the reach of children.
 Other Regulations - See OSHA REGULATIONS TO BE TAKEN IN HANDLING AND STORAGE.
 These products must be stored with other organics in a separate area. Safety covering the packages, and proper labeling and shipping the container can be helpful.
 Additional advice by deliberately concentrating and shipping the container can be helpful or fatal.

Section X - OTHER REGULATORY INFORMATION

CALIFORNIA PROPENSITY 66
WARNING: VAPOR, FOGS, AND SPRAYS contain a chemical(s) known to the State of California to cause cancer. FOGS, VAPOR, AND SPRAYS contain a chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.
 The above information pertains to these products as currently formulated, and is based on the information available at this time. Addition of residues or other additives to these products may substantially alter the composition and hazards of the products.
 These conditions of use are outside our control. We make no warranty, express or implied, and assume no liability in connection with any use of this information.

F63J

APPLICATION	SPECIFICATIONS	CAUTIONS
<p style="text-align: center;">Typical Setups</p> <p>Note: Maximum total reduction is 12% by volume to maintain 2.6 VOC.</p> <p>Conventional Spray: Air Pressure 40-50 psi Fluid Pressure 5-10 psi Cap/Tip 647</p> <p>Airless Spray: Pressure 2000-2800 psi Tip009 - .011"</p> <p>Air Assisted Airless: Air Pressure 10-30 psi Fluid Pressure 500-900 psi Cap/Tip009 - .011"</p> <p>Electrostatic Spray: Conductivity is 0.2-0.8 megohms resistance, which is suitable for all hand-held electrostatic spray setups.</p> <p>HVLP: Air Pressure 3-5 psi Fluid Pressure 5-10 psi Cap/Tip040</p> <p>Dipping, brushing or flowcoat application is not recommended.</p> <p>Cleanup: Clean tools/equipment immediately after use with Polane Reducer, MEK, MIBK, or MAK. Follow manufacturer's safety recommendations when using any solvent.</p> <p>Performance Tests Bondrite 1000 steel panels, F63W56 catalyzed and reduced, 1.5 mils dft, 30 minutes at 180°F, 14 days air cured</p> <p>Salt Spray Test 300 hours 1/8" rust creepage at scribe</p> <p>Humidity 100°F, 100% RH 300 hours</p> <p>Impact Resistance, Direct 80 in lb</p> <p>Impact Resistance, Reverse 80 in lb</p> <p>Pencil Hardness H</p> <p>Taber Abrasion CS 17 wheel, 1000 g, 1000 cycles <100 mg</p> <p>Water Immersion 24 hours</p> <p>Adhesion, Crosshatch Excellent</p> <p>MEK, 100 double rubs slight burnish</p> <p>Heat Resistance, Dry 250°F</p> <p>Chemical Resistance Lubricating & Cutting Oils Excellent Hydraulic Fluids Excellent</p>	<p>Product Limitations:</p> <ul style="list-style-type: none"> • Polane HS Plus coatings must be catalyzed with V66V55 for exterior application. Do not vary catalyst ratio. Maintain an exact ratio. The catalyst ratio has been established for optimum hardness, flexibility, gloss, chemical and solvent resistance. • For low gloss exterior applications, use Polane S Plus coatings rather than lowering gloss of Polane HS Plus. • Do not blend with polyurethane other than Polane HS Plus and S Plus for exterior applications. No other catalysts, colorants, flattening bases or reducers are recommended because foreign materials such as alcohols and glycols destroy performance properties. Lacquer thinners and alcohol containing solvent blends should not be used with Polane enamels. • Organic colors have limited hiding by themselves and must be blended with other chromatics for use. • Polane HS Plus coatings are not recommended for exterior use on wood. • Do not spray hot. Heat shortens pot-life. Do not pump catalyzed materials from drums into circulating system. Friction heat developed by pumps and circulation will shorten pot-life. • Protect Polane Enamels, Catalyst and Reducer from moisture as water affects pot-life and properties. Store indoors. • Do not package Polane coated products in airtight plastic bags unless completely cured. Since Polane Enamels continue to cure for several weeks, the buildup of organic solvents and reaction by-products could cause improper cure and adhesion failure in use. • Do not exceed 1.5 mil dry film with airless or air assisted airless equipment due to sagging tendencies. • Silver F63S65 does not offer the same color and gloss retention as other colors because of the weathering effect of aluminum pigment. Do not use for applications requiring long term color and gloss retention. • For SILVER ONLY, use MEK as a reducer rather than MAK. The faster evaporation helps the metallic pigment orientation. • The Clear F63V67 is intended for custom color intermixing and should not be used as a clearcoat because of its potential for yellowing. • When using the VIC™ process, coatings must be packaged in phenolic lined containers to prevent discoloration. 	<p>Thoroughly review product label for safety and cautions prior to using this product. A Material Safety Data Sheet is available from your local Sherwin-Williams facility. Please direct any questions or comments to your local Sherwin-Williams facility.</p> <p style="text-align: center;">LABEL CAUTIONS</p> <p>Contents are FLAMMABLE. Vapors may cause flash fire. Keep away from heat, sparks, and open flame. During use and until all vapors are gone! Keep area ventilated - Do not smoke - Extinguish all flames, pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition. SEE CONTENTS STATEMENT ON LABEL, VAPOR HARMFUL. Use only with adequate ventilation. This product must be used with an appropriate catalyst. Follow the respirator requirement and instructions on the catalyst.</p> <p>Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage.</p> <p>FIRST AID: IF INHALED: If affected, remove from exposure. Restore breathing. Keep warm and quiet. IF ON SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing. Launder before re-use. IF IN EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention. IF SWALLOWED: Get medical attention immediately.</p> <p>SPILL AND WASTE: Remove all sources of ignition. Ventilate and remove with inert absorbent. Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State, and Local regulation regarding pollution.</p> <p>DELAYED EFFECTS FROM LONG TERM OVER-EXPOSURE: Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.</p> <p>WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN. FOR INDUSTRIAL USE ONLY. SEE MATERIAL SAFETY DATA SHEET. K05213 11/95</p> <p>Catalyst CONTAINS ISOCYANATES. People who have chronic (long-term) lung or breathing problems or have had a reaction to isocyanates, must not be in the area where this product is being applied. Where overspray is present, a positive pressure air-supplied respirator should be worn. If unavailable, a properly fitted organic vapor/particulate respirator may be effective. Consult catalyst MSDS and product label for complete handling instructions.</p> <p>Note: Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating, and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in customer handling and methods of application which are not known or under our control, The Sherwin-Williams Company cannot make any warranties as to the end result.</p>

Paint Mixing Guide Polane HS

White Polane 11.88 lbs/gal 1438 g/l
 Catalyst 9.34 lbs/gal 1121 g/l
 Reducer MAK 6.78 lbs/gal 811 g/l

To Mix. (ml)	Paint (g)	Catalyst (g)	Solvent (g)	Total Mass
100	99.3	25	8.7	130
250	240.75	62.5	21.75	325
500	481.5	125	43.5	650
1000	963	250	87	1300
1250	1203.75	312.5	108.75	1625
1750	1685.25	437.5	149.25	2272.5
2000	1926	500	174	2600
2250	2166.75	562.5	195.75	2925
2750	2648.25	687.5	249.25	3585
3000	2889	750	274	3913

FROM : SHERWIN-WILLIAMS CEDAR FALLS FAX NO. : 319 277 6277

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Rick

MATERIAL SAFETY DATA SHEET

15
05 00

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NUMBER

15 V66455

HMIS CODES

Health	2w
Flammability	2
Reactivity	1

PRODUCT NAME

POLANE* MS Plus Exterior Catalyst

MANUFACTURER'S NAME

THE SHERWIN-WILLIAMS COMPANY

161 Prospect Avenue N.W.

Cleveland, OH 44115

DATE OF PREPARATION

22-AUG-01

EMERGENCY TELEPHONE NO.

(216) 566-2917

INFORMATION TELEPHONE NO.

(216) 566-2902

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT	UNITS	VAPOR PRESSURE
1	64742-95-6	Light Aromatic Hydrocarbons.		
		ACGIH TLV	Not Established	3.5 mm
		OSHA PEL	Not Established	
1	105-67-8	1,2,3-Trimethylbenzene†		
		ACGIH TLV	25 ppm	2 mm
		OSHA PEL	25 ppm	
2	95-63-6	1,2,4-Trimethylbenzene		
		ACGIH TLV	25 ppm	2.03 mm
		OSHA PEL	25 ppm	
3	123-66-4	n-Butyl Acetate.		
		ACGIH TLV	150 ppm	10 mm
		ACGIH TLV	200 ppm STEL	
		OSHA PEL	150 ppm	
		OSHA PEL	200 ppm STEL	
0.2	822-85-8	Hexamethylene Diisocyanate (max.)		
		ACGIH TLV	0.025 ppm	0.05 mm
		OSHA PEL	Not Established	
98	28132-81-2	Hexamethylene Diisocyanate Polymer.		
		ACGIH TLV	Not Established	
		OSHA PEL	Not Established	

Section 3 -- HAZARDS IDENTIFICATION

ROUTES OF EXPOSURE

Exposure may be by INHALATION and/or SKIN or EYE contact, depending on conditions of use. To minimize exposure, follow recommendations for proper use, ventilation, and personal protective equipment.

EFFECTS OF OVEREXPOSURE

Irritation of eyes, skin and respiratory system. May cause nervous system depression. Extreme overexposure may result in unconsciousness and possibly death.

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SIGNS AND SYMPTOMS OF OVEREXPOSURE

Headache, dizziness, nausea, and loss of coordination are indications of excessive exposure to vapors or spray mists.

Redness and itching or burning sensation may indicate eye or excessive skin exposure.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

May cause allergic respiratory and/or skin reaction in susceptible persons or sensitization. This effect may be delayed several hours after exposure.

CANCER INFORMATION

For complete discussion of toxicology data refer to Section 11.

Section 4 -- FIRST AID MEASURES

- If INHALED:** If any breathing problems occur during use, LEAVE THE AREA and get fresh air. If problems remain or occur later, IMMEDIATELY get medical attention.
- If on SKIN:** Wash affected area thoroughly with soap and water. Remove contaminated clothing and laundry before re-use.
- If in EYES:** Flush eyes with large amounts of water for 15 minutes. Get medical attention.
- If SWALLOWED:** Do not induce vomiting. Get medical attention immediately.

FLASH POINT	LEL	UEL
117 F PWOC	0.7	7.6

FLAMMABILITY CLASSIFICATION

Combustible, Flash above 99 and below 200 F

EXTINGUISHING MEDIA

Carbon Dioxide, Dry Chemical, Foam

UNUSUAL FIRE AND EXPLOSION HAZARDS

Keep containers tightly closed. Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Application to hot surfaces requires special precautions. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Obtain medical attention.

SPECIAL FIRE FIGHTING PROCEDURES

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be ineffective. If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.

Section 6 -- ACCIDENTAL RELEASE MEASURES

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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Remove all sources of ignition. Ventilate the area. All personnel in the area should be protected as in Section VIII. Cover spill with absorbent material. Deactivate spilled material with a 10% ammonium hydroxide solution (household ammonia). After 10 minutes, collect in open containers and add more ammonia. Cover loosely. Wash spill area with soap and water.

Section 7 -- HANDLING AND STORAGE

DOL STORAGE CATEGORY

2

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Contents are **COMBUSTIBLE**. Keep away from heat and open flame. Consult NFPA Code. Use approved Bonding and Grounding procedures. Keep container closed when not in use. Transfer only to approved containers with complete and appropriate labeling. Do not take internally. Keep out of the reach of children.

Section 8 -- EXPOSURE CONTROLS/PERSONAL PROTECTION

PRECAUTIONS TO BE TAKEN IN USE

NO PERSON SHOULD USE THIS PRODUCT, OR BE IN THE AREA WHERE IT IS BEING USED, IF THEY HAVE CHRONIC (LONG-TERM) LUNG OR BREATHING PROBLEMS OR IF THEY EVER HAD A REACTION TO ISOCYANATES.

Use only with adequate ventilation. Avoid breathing vapor and spray mist. Avoid contact with skin and eyes. Wash hands after using.

This coating may contain materials classified as nuisance particulates (listed "as Dust" in Section 2) which may be present at hazardous levels only during sanding or abrading of the dried film. If no specific dusts are listed in Section 2, the applicable limits for nuisance dusts are ACGIH TLV 10 mg/m³ (total dust), 5 mg/m³ (respirable fraction), OSHA PEL 15 mg/m³ (total dust), 5 mg/m³ (respirable fraction).

VENTILATION

Local exhaust preferable. General exhaust acceptable if the exposure to materials in Section 2 is maintained below applicable exposure limits. Refer to OSHA Standards 1910.94, 1910.107, 1910.108.

RESPIRATORY PROTECTION

Where overspray is present, a positive pressure air supplied respirator (TD19C NIOSH/MSHA approved) should be worn. If unavailable, a properly fitted organic vapor/particulate respirator approved by NIOSH/MSHA for protection against materials in Section 2 may be effective. Follow respirator manufacturer's directions for use. Wear the respirator for the whole time of spraying and until all vapors and mists are gone. **NO PERSONS SHOULD BE ALLOWED IN THE AREA WHERE THIS PRODUCT IS BEING USED UNLESS EQUIPPED WITH THE SAME RESPIRATOR PROTECTION RECOMMENDED FOR THE PAINTERS.**

When sanding or abrading the dried film, wear a dust/mist respirator approved by NIOSH/MSHA for dust which may be generated from this product, underlying paint, or the abrasive.

PROTECTIVE GLOVES

Wear gloves which are recommended by glove supplier for protection against materials in Section 2.

EYE PROTECTION

Wear safety spectacles with unperforated sideshields.

OTHER PROTECTIVE EQUIPMENT

Use barrier cream on exposed skin.

OTHER PRECAUTIONS

This product must be mixed with other components before use. Before opening the packages, **READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.**

Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.

Section 9 — PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT WEIGHT	9.34 lb/gal	1119 g/l	
SPECIFIC GRAVITY	1.12		
BOILING POINT	255 - 350 F	123 - 182 C	
MELTING POINT	Not Available		
VOLATILE VOLUME	12 %		
EVAPORATION RATE	Slower than ether		
VAPOR DENSITY	Heavier than air		
SOLUBILITY IN WATER	N.A.		
VOLATILE ORGANIC COMPOUNDS (VOC Theoretical)			
0.93 lb/gal	111 g/l	Less Federally Exempt Solvents	
2.93 lb/gal	111 g/l	Excluded VOC	

Section 10 — STABILITY AND REACTIVITY**STABILITY — Stable****CONDITIONS TO AVOID**

None known.

INCOMPATIBILITY

Contamination with Water, Alcohols, Amines and other compounds which react with isocyanates, may result in dangerous pressure in, and possible bursting of, closed containers.

HAZARDOUS DECOMPOSITION PRODUCTS

By fire: Carbon Dioxide, Carbon Monoxide, Oxides of Nitrogen, possibility of Hydrogen Cyanide

HAZARDOUS POLYMERIZATION

Will not occur

ed carcinogen.

Prolonged overexposure to solvent ingredients in Section 2 may cause adverse effects to the liver, urinary, blood forming and reproductive systems.

Persons sensitive to isocyanates will experience increased allergic reaction on repeated exposure.

Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage.

TOXICOLOGY DATA

CAS No.	Ingredient Name	LD50	RAT	4HR	Not Established
84742-95-6	Light Aromatic Hydrocarbons.	LD50	RAT	4HR	Not Established
		LD50	RAT		Not Established

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105-67-8	1,3,5-Trimethylbenzene	LC50	RAT	4HR	Not Established	
		LD50	RAT		Not Established	
95-63-6	1,2,4-Trimethylbenzene	LC50	RAT	4HR	Not Established	
		LD50	RAT		Not Established	
123-86-4	n-Butyl Acetate.	LC50	RAT	4HR	2000	ppm
		LD50	RAT		13100	mg/kg
922-88-0	Hexamethylene Diisocyanate (max.)	LC50	RAT	4HR	Not Established	
		LD50	RAT		738	mg/kg
28182-81-2	Hexamethylene Diisocyanate Polymer	LC50	RAT	4HR	Not Established	
		LD50	RAT		Not Established	

Section 12 -- ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

No data available.

Section 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD

Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

Waste must be tested for ignitability to determine the applicable EPA hazardous waste numbers.

Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State/Provincial, and Local regulations regarding pollution.

Section 14 -- TRANSPORT INFORMATION

No data available.

Section 15 -- REGULATORY INFORMATION

9999 313 (40 CFR 372.650) SUPPLIER NOTIFICATION

CAS No.	CHEMICAL/COMPOUND	% by WT	% Element
95-63-6	1,2,4-Trimethylbenzene	2	

CALIFORNIA PROPOSITION 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TSCA CERTIFICATION

All chemicals in this product are listed, or are exempt from listing, on the TSCA Inventory.

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Section 15 -- OTHER INFORMATION

The above information pertains to this product as currently formulated, and is based on the information available at this time. Addition of reducers or other additives to this product may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information.